

# New Combinations and a New Species in the Brazilian Genus *Chaetostoma* DC. (Microlicieae: Melastomataceae)

Cristiana Koschnitzke and Angela Borges Martins

Departamento de Botânica, Universidade Estadual de Campinas, CP 6109, 13083 970, Campinas, São Paulo, Brazil

**ABSTRACT.** Four new combinations in *Chaetostoma* (*C. albiflorum*, *C. cupressinum*, *C. selagineum*, *C. stenocladon*,) are proposed, and a new species, *Chaetostoma flavum*, endemic to the Chapada dos Veadeiros, Goiás, Brazil, is described. The new species can be distinguished by its 4–5-locular ovary and antisepalous stamens with prolonged appendages.

*Chaetostoma* DC. is a genus endemic to Brazil comprising 11 species that occur in campo rupestre, campo de altitude, and campo cerrado vegetation in the states of Goiás, Distrito Federal, Minas Gerais, with a less considerable representation in Bahia, Rio de Janeiro, São Paulo, and Paraná. This genus can be distinguished within the tribe Microlicieae, especially with regard to *Microlicia* D. Don, to which it has the closest affinity, by the combination of the following diagnostic features: carinate, imbricate, and pungent leaves without translucent dots; the mature capsule longer than the hypanthium; and a crown of trichomes around the outward apex of the hypanthium. The distinction between *Chaetostoma* and *Microlicia* has been made by Cogniaux (1883, 1891), in the last revision of these genera, on the basis of just one character: the morphology of the stamens, considered equal in both cycles in *Chaetostoma* and very unequal in *Microlicia*. This character has proven to be unreliable, and the most striking difference between these genera is in the possession of the crown of trichomes on the hypanthium in all species of *Chaetostoma*, which is absent in all species of *Microlicia*. In a recent revision of *Chaetostoma* (Koschnitzke, 1997), some taxonomic novelties were recognized, and it was found necessary to propose some new combinations and a new species for the genus.

***Chaetostoma albiflorum*** (Naudin) Koschnitzke & A. B. Martins, stat. nov. Basionym: *Chaetostoma pungens* DC. var. *albiflorum* Naudin, Ann. Sci. Nat. Bot. Sér. 3, 3: 191. 1845. TYPE: Brazil. Minas Gerais: Serra de Carrancas, 1822, A. St-Hilaire s.n. (holotype, P not seen).

*Chaetostoma pungens* DC. var. *pallidiflorum* Cogniaux, in Martius, Fl. Bras. 14: 32. 1883. Syn. nov. TYPE: Brazil. Minas Gerais: Serra de Itatiaia, Mar. 1839, Riedel s.n. [Martii Herbar. Florae Brasil no. 922] (lectotype, selected here, BR; isoelectotypes, BM, G, K, W).

***Chaetostoma cupressinum*** (D. Don) Koschnitzke & A. B. Martins, comb. nov. Basionym: *Microlicia cupressina* D. Don, Mem. Wern. Soc. 4: 302. 1823. TYPE: Brazil. Minas Gerais: 6 May 1819, Sellow 1329 (holotype, BM; isotype, BR).

*Chaetostoma luteum* Cogniaux, in Martius, Fl. Bras. 14: 589–590. 1888. Syn. nov. TYPE: Brazil. Minas Gerais: São João del Rey, Serra do Lenheiro, 24 June 1887, Glaziou 16769 (holotype, B destroyed; lectotype, selected here, BR; isoelectotypes, C, F, G, K, MO, P, RB).

*Chaetostoma luteum* Cogniaux var. *quadrifarium* Cogniaux, in A. DeCandolle & C. DeCandolle, Monogr. Phan. 7: 29. 1891. Syn. nov. TYPE: Brazil. Minas Gerais: São João del Rey, Serra do Lenheiro, 24 Jan. 1889, Glaziou 17503 (holotype, BR; isotypes, BR, C, F, G, K, P, R).

*Chaetostoma trauninense* Cogniaux, in A. DeCandolle & C. DeCandolle, Monogr. Phan. 7: 30. 1891. Syn. nov. TYPE: Brazil. Minas Gerais: São João del Rey, Serra do Lenheiro, 24 June 1887, Glaziou 16769a (lectotype, selected here, BR; isoelectotypes, B, C, F, K, RB).

*Chaetostoma joannae* Cogniaux, in A. DeCandolle & C. DeCandolle, Monogr. Phan. 7: 28. 1891. Syn. nov. TYPE: Brazil. Minas Gerais: Serra do Lenheiro, 1889, Glaziou 17504 (lectotype, selected here, BR; isoelectotypes, B, BR, C, F, G, K, P).

***Chaetostoma selagineum*** (Naudin) Koschnitzke & A. B. Martins, comb. nov. Basionym: *Microlicia selaginea* Naudin, Ann. Sci. Nat. Bot. Sér. 3, 3: 188. 1845. TYPE: Brazil. Goiás: Chapadão, A. St-Hilaire 550 (holotype, P not seen; isotype, F).

***Chaetostoma stenocladon*** (Naudin) Koschnitzke & A. B. Martins, comb. nov. Basionym: *Microlicia stenocladon* Naudin, Ann. Sci. Nat. Bot. Sér. 3, 3: 188. 1845. TYPE: Brazil. Goiás: Serra dos Pirineus, 17 June 1819, A. St-Hilaire s.n. (holotype, P not seen; isotype, F).

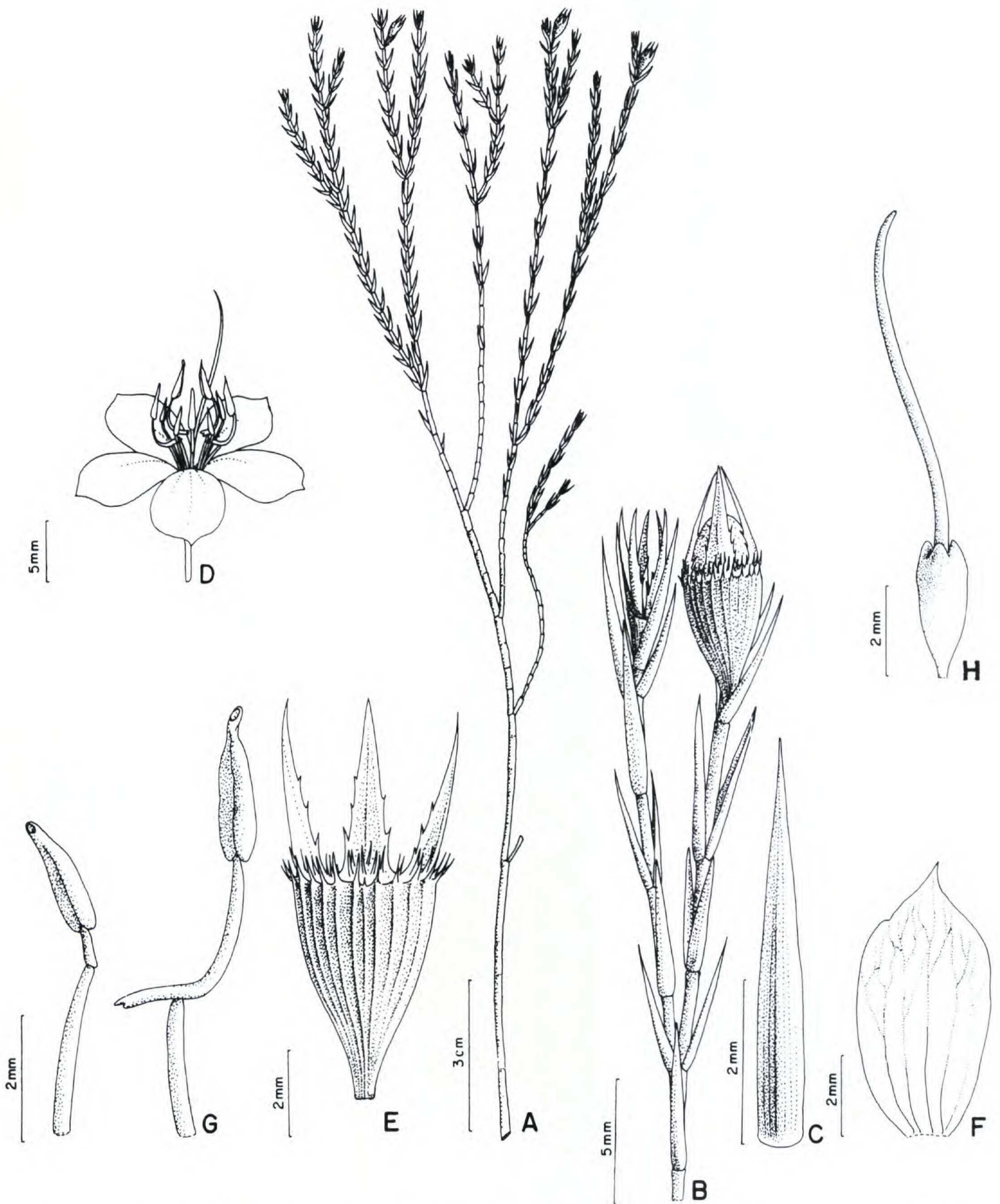


Figure 1. *Chaetostoma flavum* Koschnitzke & Martins. —A. Flowering branch. —B. Branch apex. —C. Leaf (adaxial surface). —D. Flower. —E. Calyx lobes, apex of the hypanthium outward with trichomes. —F. Petal. —G. Stamens, antipetalous (left) and antisepalous (right). —H. Ovary and style. Drawn from holotype.

*Microlicia amaro* Brade, Arq. Jard. Bot. Rio J. 16: 29. 1959. Syn. nov. TYPE: Brazil. Goiás: Serra dos Pirineus, 17 Feb. 1956, *Macedo 4360* (holotype, Herbarium A. C. Brade & A. Macedo not seen; isotypes, K, S).

***Chaetostoma flavum*** Koschnitzke & A. B. Martins, sp. nov. TYPE: Brazil. Goiás: Alto Paraíso, Chapada dos Veadeiros, 18 Mar. 1976, *Semir 712* (holotype, UEC; isotypes, UEC, MO). Figure 1.

Haec species inter affines petalis flavis, hypantho subtiliter striato, trichomatibus brevibus incrassatis superne circumcirca ornato, connectivo antherarum maiorum longe producto et praecipue ovario 4–5-loculari distinguitur.

Erect and caespitose subshrub 30–100 cm tall, branching dichotomous or trichotomous, branches fastigiate, glabrous, and articulate. Leaves caducous with age, imbricate, adpressed, erect, sessile and semiamplexicaul, blade 3–7 × 0.8–1 mm, keeled, coriaceous, triangular-lanceolate, acute at the apex, pungent, margins entire or serrulate-ciliate, abaxial surface glabrous, adaxial surface with short trichomes, 5-nerved. Flowers 5-merous, solitary, terminal, without bracts, sessile; hypanthium 2.5–4.5 mm long, oblong-campanulate, ribbed, glabrous or rarely pubescent, apex outward with short and thick adpressed trichomes; calyx lobes 3–4 mm long, 1–2 mm wide at the base, persistent, erect, subcarinate, triangular-lanceolate, acute at the apex, pungent, margins inconspicuously serrulate-ciliate, abaxial surface glabrous, adaxial surface with short trichomes, 5-nerved. Petals 8–11 × 4–7 mm, irregularly and broadly obovate, acuminate at the apex, yellow; antisepalous stamens five, 9–13 mm long, filaments 4–5 mm long, anthers tetrasporangiate, 2–3 mm long, yellow, oblong with a small and single pore, dorsally inclined in both series, connective 3–5 mm prolonged below the thecae, appendage 1–2 mm, bilobed; antipetalous stamens five, 5–7 mm long, filaments 4 mm long, anther 1.5–2.5 mm long, similar to the antisepalous, connective 1 mm prolonged below the thecae, appendage small, tuberculate; ovary 4–5-locular,

2–4 mm long, oblong, glabrous, style 5.5–7 mm long, stigma punctiform. Fruit capsular, 4–5 mm long, completely covered by the hypanthium and loculicidally dehiscent in the upper part; seeds numerous, 0.6–0.65 mm long, slightly curved, testa reticulate-foveolate, anticlinal walls undulated.

*Chaetostoma selagineum* is closely related to *C. flavum* because of its acute and pungent leaves, slightly ribbed hypanthium, yellow petals, and connective of the antisepalous stamens with prolonged appendages. *Chaetostoma flavum* has a sessile hypanthium, 4–5-locular ovary, and a seed testa with undulated anticlinal walls, while *Chaetostoma selagineum* has a pedunculate hypanthium, 3-locular ovary, and seeds with straight anticlinal walls.

*Chaetostoma flavum* is endemic to the Chapada dos Veadeiros, Goiás, Brazil, in areas with stony and sandy soils. It has been collected flowering from January until August and with fruits in January and June.

*Paratypes.* BRAZIL. **Goiás:** Alto Paraíso: rio Piçarão, *Glaziou 21212* (BR, C, G, P); Chapada dos Veadeiros, *Anderson 6707* (F, MO, RB, US), *Dawson 14692* (US), *Gates & Estabrook 13* (SP), *Irwin et al. 24676* (F, MO, US), *Oliveira & Anderson 471* (CAS, MBM); Serra dos Veadeiros, *Glaziou 1895* (P). Niquelândia: Estrada da mina de níquel, *Fonseca et al. 167* (UEC).

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